PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Applicant(s) :	Isabella A. Atencio, Drake M. LaFace Muralidhara Ramachandra and Paul. W. Shabram	Examiner: Anne-Marie Baker, Ph.D.
Title :	Calpain Inhibitors and their Applications	Group Art Unit: 1632
Serial No. :	09/416,735	
Filed :	October 13, 1999	**Clean Copy of Claims As Amended June 15, 2001**
Docket No. :	CJ-0897Q US	

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

The following is a clean copy of the claims as amended pursuant to the amendment filed June 16, 2001.

We claim:

5. A method of increasing the infectivity of a cell to a viral vector by treatment of the cell with a micro-calpain inhibitor.

6. The method of claim 5 where said viral vector is an adenoviral vector.

7. The method of claim 6 wherein said micro-calpain inhibitor is calpain inhibitor 1.

21. The method of claim 6 wherein said adenoviral vector is replication deficient.

22. The method of claim 21 wherein said replication deficient adenoviral vector encodes a therapeutic transgene.

CERTIFICATE OF MAILING

The undersigned hereby certifies that the attached correspondence is being deposited as First Class Mail with sufficient postage with the United States Postal Service in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on the date indicated below.

Richard B. Murphy — June 15, 2001

23. The method of claim 22 where said transgene is selected from the group consisting of cytostatic genes and pro-apoptotic genes.

24. The method of claim 23 wherein the gene is a cytostatic gene.

25. The method of claim 24 wherein the gene is the p21 gene.

26. The method of claim 23 wherein the gene is a pro-apoptotic gene.

27. The method of claim 26 wherein the gene is p53.

28. The method of claim 5 wherein the vector is replication competent.

29. The method of claim 28 wherein the replication competent vector is a conditionally replicating viral vector.

30. The method of claim 29 wherein the conditionally replicating viral vector further comprises an expression cassette which expresses a pro-apoptotic gene.

31. The method of claim 30 wherein the pro-apoptotic gene is the E3-11.6K gene.

32. The method of claim 5 wherein the method is practiced *in vitro*.

33. The method of claim 32 wherein the viral vector is a replication deficient adenoviral vector and the cell is a producer cell capable of complementing the deleted functions of the replication deficient adenoviral vector.

34. The method of claim 33 wherein the replication deficient adenoviral vector lacks a functional E1 region and the producer cell is a 293 cell.

35. The method of claim 32 wherein said *in vitro* practice of the method is in a process to purge tumor cells from a stem cell product by exposing said stem cell product to a calpain inhibitor prior to the administration of a viral vector.

36. The method of claim 35 wherein said viral vector is an adenoviral vector that encodes and expresses the p53 tumor suppressor gene.